UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,528	04/20/2004	Dibyapran Sanyal	200400478-2	2967

22879 7590 12/11/2007		

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EXAMINER
NGUYEN, PHILLIP H

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
12/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application No.	Applicant(s)
Office Action Summary		10/827,528	SANYAL ET AL.
		Examiner	Art Unit	
		Phillip H. Nguyen	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 October 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-23_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed 10/10/2007.

2.   Claims 1-23 remain pending and have been considered below.

Response to Amendment

3.   The rejection to claim 7 under 35 U.S.C. 112, second paragraph of previous

action is withdrawn in view of Applicants' amendment to clarify the identified

discrepancy.

4.   Examiner maintains the rejection to claims 11-23 under 35 U.S.C. 101 of

previous action in view of Applicants' amendment.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-23 have been considered but are

moot in view of the new ground(s) of rejection.

Specification

6.   The amendment filed 10/10/2007 is objected to under 35 U.S.C. 132(a) because

it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no

amendment shall introduce new matter into the disclosure of the invention. The added

material which is not supported by the original disclosure is as follows: "a computer

readable medium" is considered as new matter because it is not supported or described

by the original specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 8, 18, and 21-23 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the written description requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention.

-    Regarding claim 21 has been amended to recites a computer readable medium.

      This newly added material is not supported or described in the original

      specification. For examining purposes, examiner interprets claim 21 as a

      computer program claims. Claims 22-23 suffer the same rejection since they

      depend on claim 21.

-    Regarding claim 8 and 18 recite "...wherein one or more models are <u>applicable</u>

      to a plurality of respective source or target instructions" is unclear to examiner as

      to whether applicable means containing/including/comprising or applicable

      means something else. Furthermore, the claimed limitation contains a functional

language which is "applicable". In other words, one or more models are

applicable <u>but not necessarily applied</u> to a plurality of respective source or target

instructions. For examining purposes, examiner interprets that "one or more

models contain a plurality of respective source or target instructions." Applicant

is suggested to clarify the claimed limitation.

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-23 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

- Regarding claim 11 recites a computer apparatus including a binary translator

    but it appears reasonable to interpret this computer apparatus by one of ordinary

    skill in the art as software, per se. Applicant's specification provides no explicit

    and deliberate definition of the binary translator or other software components

    such as "binary translator", "a source model", "a target model", "a mapping", and

    "a routine generator" that make up the computer apparatus other than they could

    be software components, which are directed to functional descriptive material,

    per se, and therefore non-statutory. Claims 12-20 directly or indirectly depend on

    claim 11 and therefore suffer the same rejection

-    Regarding claim 21 recite a computer program embedded in <u>a computer</u>

<u>readable medium</u> but <u>a computer readable medium</u> is a new matter that has not

been described in the original specification. Examiner interprets this claim as a

computer program. Therefore, claim 21 is directed to software per se. Claims

22-23 directly depend on claim 21 and therefore suffer the same rejection.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   Claims 1-4, 6, 8-14, 16, and 18-23 are rejected under 35 U.S.C. 102(e) as being

anticipated by Hellman et al. (United States Patent Application Publication No. US

2004/0216030).

<u>As per claims 1, 11 and 21:</u>

Hellman discloses:

-    generating a source model of a source format element (see at least *FIG. 1 and*

FIG. 11F; also see at least paragraph [0100] "*a source data schema and a*

target data schema are imported");

- generating a target model of a target format element (see at least *FIG. 1 and*

  FIG. 11F; also see at least paragraph [0100] "*a source data schema and a*

  target data schema are imported");

- generating a mapping between said source model and said target model (see at

  least *FIG. 1 and FIG. 11I-11O*; also see at least paragraph [0103] "*the source*

  and target data schema are mapped into the common ontology model, and

  mappings therefor are generated"; also see paragraph [0106] "*The source*

  and target data schema and the common ontology model are used by a

  mapping processor 230 to generate respective source and target

  mappings, for mapping the source data schema into the common model

  and for mapping the target data schema into the common ontology

  model");

- generating a transformation routine based on said mapping for extracting data

  from said source element and depositing said data in said target element (see at

  least *FIG. 1 and FIG. 11P*; also see at least paragraph [0103] "*a transformation*

  is derived for transforming data conforming with the source data schema

  into data conforming with the target data schema, based on the mappings

  derived").

As per claims 2 and 12:

Hellman further discloses:

- a mapping generated between the source model and said plurality of target

models (see at least paragraph [0336 – 0410] "*A Twelfth Example - A Twenty-*

Third Example").

As per claims 3 and 13:

Hellman further discloses:

- in which source models are generated for a plurality of source elements and a

mapping generated between said plurality of source models and said target

model (see at least paragraph [0336 – 0410] "*A Twelfth Example - A Twenty-*

Third Example").

As per claims 4 and 14:

Hellman further discloses:

- in which said transformation routine is arranged to transform data in software

code instructions from a source format code to a target format code and said

routines are generated in said target format code (see at least *FIG. 11F-11P*).

As per claims 6, 16 and 23:

Hellman further discloses:

- in which the transformation routine is executed at the runtime of a program in

said source code (see at least *FIG. 11P*; also see at least paragraph [0145] "*to*

derive executable code that transforms source XML document into the

target XML documents").

As per claims 8 and 18:

Hellman further discloses:

- in which a group of source models and target models are provided wherein one

 or more models are applicable to a plurality of respective source or target

 instructions (see at least *FIG. 11F*).

As per claims 9 and 19:

Hellman further discloses:

- in which said transformation routine is associated with a template providing a set

 of target format instructions semantically equivalent to said identified source

 instruction (see at least *FIG. 11P*).

As per claims 10 and 20:

Hellman further discloses:

- in which the transformation routine is arranged to transform data from a database

 between a source database format to a target database format (see at least

 paragraph [0122] "*to derive executable code that transforms source*

 relational databases into the target relational databases").

As per claim 22:

Hellman further discloses:

- in which said transformation routines are implemented as routines in said

computer program (see at least *FIG. 11P*; also see at least paragraph [0122] "*to*

derive executable code that transforms source relational databases into the

target relational databases").

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

13.   Claims 5, 7, 15, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hellman et al. (United States Patent Application Publication No. US

2004/0216030), in view of Sandham (United States Patent No. US 7,203,636).

As per claims 5 and 15:

Hellman does not explicitly disclose:

- mapping accounts for differences in endianness between the source and target

models.

However, Sandham discloses *endian transformation system for transforming an address location of a code represented in a first endian format into an address in a second endian format* (see col. 2, lines 37-40).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that endain transformation is well known to the art. One would have been motivated to modify Hellman's approach to allow endian transformation as disclosed in Sandham's approach to transform source data schema to target data schema to allow the target data schema to be processed on a different type of processors.

As per claims 7 and 17:

Sandham further discloses:

- in which said target and source models relate bit positions to variable names for any give instruction (see at least col. 2, lines 41-44 "*the transformation comprising introducing an offset into the address, the size of the offset being determined from the difference between the address location of the code and a predefined address location*").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571)

270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM -
3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for
the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
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USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
11/29/2007

WEI ZHEN
SUPERVISORY PATENT EXAMINER